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     (FILE 'HOME' ENTERED AT 10:04:30 ON 15 FEB 2007)

     FILE 'CAPLUS, USPATFULL' ENTERED AT 10:05:11 ON 15 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:06:22 ON 15 FEB 2007
L1             1 S KAINIC ACID/CN

     FILE 'CAPLUS, USPATFULL' ENTERED AT 10:07:02 ON 15 FEB 2007
L2          8018 S KAINIC ACID OR L1
L3        112207 S (TREAT? OR EXPOS? OR CONTACT?) (3A) (CROP? OR PLANT? OR TREE?
L4          8776 S L2 OR GLUTAMATE AGONIST OR GLUTAMIC (2A) AGONIST
L5             0 S L4 (P) L3
L6            10 S L4 AND L3
L7        242662 S INSECT OR ARACHNID? OR ARTHROPOD OR SPIDER OR SCORP? OR MITE
L8         47985 S (CROP OR PLANT) (3A) (GENET? OR DNA OR RNA)

     FILE 'REGISTRY' ENTERED AT 12:59:21 ON 15 FEB 2007
L9             1 S ABAMECTIN/CN

     FILE 'CAPLUS, USPATFULL' ENTERED AT 12:59:46 ON 15 FEB 2007
L10         2510 S ABAMECTIN OR L9
L11          251 S L10 AND L7 AND L8
L12            0 S L10 (P) L7 (P) L8
L13        23492 S (TREAT? OR CONTACT?) (2A) SEED
L14           87 S L11 AND L13
L15           87 S L8 (P) L13
L16            6 S L15 AND  L10 AND L7
L17       141289 S TRANSGEN? OR TRANS GEN?
L18         4867 S (DNA OR RNA OR GENET? OR TRANSGEN OR TRANS GEN?) (3A) SEED
L19            5 S L18 AND L10 AND L13 AND L7
L20            5 S L19 NOT L16
L21            5 S L18 AND L10 AND L13
L22            0 S L21 NOT L20
L23        67089 S (TREAT? OR CONTACT? OR APPL?) (3A) (CORN OR MAIZE OR COTTON O

     FILE 'REGISTRY' ENTERED AT 15:34:33 ON 15 FEB 2007
L24            1 S PERMETHRIN/CN

     FILE 'CAPLUS, USPATFULL' ENTERED AT 15:34:53 ON 15 FEB 2007
L25         8832 S PERMETHRIN OR L24
L26          107 S L23 (P) L25
L27        34315 S (TREAT? OR CONTACT? OR APPL? OR ADMINIST?) (3A) SEED
L28            9 S L26 (P) L27

     FILE 'REGISTRY' ENTERED AT 16:01:30 ON 15 FEB 2007
L29            8 S FENVALERATE/CN OR ESFENVALERATE/CN OR CYPERMETHRIN/CN OR DELT
L30            9 S TAU FLUVALINATE/CN OR TRANSFLUTHRIN/CN OR ACRINATHRIN/CN OR T
L31            5 S TETRAMETHRIN/CN OR CYPHENOTHRIN/CN OR PRALLETHRIN/CN OR IMIPR

     FILE 'CAPLUS, USPATFULL' ENTERED AT 16:07:45 ON 15 FEB 2007
L32        12052 S FENVALERATE OR ESFENVALERATE OR CYPERMETHRIN OR DELTAMETHRIN
L33         5431 S TAU FLUVALINATE OR TRANSFLUTHRIN OR ACRINATHRIN OR TRALOMETHR
L34         3556 S TETRAMETHRIN OR CYPHENOTHRIN OR PRALLETHRIN OR IMIPROTHRIN OR
L35        18556 S L32 OR L33 OR L34 OR L29 OR L30 OR L31
L36           26 S L23 (P) L35 (P) L27
L37           10 S L36 AND WHEAT
L38           16 S L36 NOT L37
L39            1 S (FLY OR FLIES) AND L37

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L37 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:83250 CAPLUS
DOCUMENT NUMBER: 106:83250
TITLE: Efficacy of deltamethrin against insect infestation in wheat stored under rural storage system
AUTHOR(S): Yadav, T. D.
CORPORATE SOURCE: Div. Entomol., Indian Agric. Res. Inst., New Delhi, India
SOURCE: Pesticides (1986), 20(10), 12-13, 19
CODEN: PSTDAN; ISSN: 0031-6148
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Treatment of wheat seed with 3 ppm of deltamethrin [52918-63-5] provided effective protection ≤6 mo under a rural storage system. A 20 mg/m2 deposit of deltamethrin (Kothrine) WP on jute and cement surfaces persisted for 120-170 days and gave total kill against 8 species of stored product insects. Even on a mud surface similar efficacy was observed against 5 species of insects. The potential of deltamethrin in prophylactic operation is discussed.
TI Efficacy of deltamethrin against insect infestation in wheat stored under rural storage system
AB Treatment of wheat seed with 3 ppm of deltamethrin [52918-63-5] provided effective protection ≤6 mo under a rural storage system. A 20 mg/m2 deposit of deltamethrin (Kothrine) WP on jute and cement surfaces persisted for 120-170 days and gave total kill against 8 species of stored product insects. Even on a mud surface similar efficacy was observed against 5 species of insects. The potential of deltamethrin in prophylactic operation is discussed.
ST deltamethrin insecticide wheat storage
IT Wheat

(rice weevil control by, in wheat seeds)

L37 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:589536 CAPLUS
DOCUMENT NUMBER: 111:189536
TITLE: Field evaluation of synthetic pyrethroids for the protection of stored wheat seed against storage pests
AUTHOR(S): Ramzan, M.; Chahal, B. S.; Judge, B. K.
CORPORATE SOURCE: Dep. Entomol., Punjab Agric. Univ., Ludhiana, India
SOURCE: International Pest Control (1989), 31(4), 87-9
CODEN: IPCLBZ; ISSN: 0020-8256
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Three field trials on the treatment of wheat seed against a complex of storage pests, comprising mainly Rhizopertha dominica, Sitophilus oryzae, and Tribolium castaneum, were conducted during 1985-87 using synthetic pyrethroids, namely deltamethrin (Decis 2.8 EC, K-othrine 2.5 WP), fenvalerate (Sumicidin 20 EC), fenpropathrin (Meothrin 10 EC) and cypermethrin (Cymbush 25 EC, Markcyper 10 EC) each at 4 and 8 ppm and compared with malathion (Cythion 5% dust) at 125 ppm and untreated control. The seed treated with both the dosages of K-othrine after 6 mo of storage was almost free from insect damage. In other pyrethroid treatments, the damage after six months of storage varied from 2.7 to 7.9% during 1985. However, during 1986 and 1987, the damage did not exceed 2.0 and 1.0%, resp., the two years being on a par with one another. Fenpropathrin proved significantly inferior. In malathion-treated seed the loss varied from 11.0 to 13.0% and in controls the losses were 29.5 and 34.2%, in 1986 and 1987, resp. After one year's storage, there was no appreciable reduction in viability even at 250 ppm. Thus, the pyrethroids can be safely used for seed treatment.

TI Field evaluation of synthetic pyrethroids for the protection of stored wheat seed again

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L37 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:944048 CAPLUS
DOCUMENT NUMBER: 144:46591
TITLE: Effectiveness of deltamethrin and carboxin in long-term protection of health, viability and vigor of wheat seed
AUTHOR(S): Tiwari, Surendra Nath
CORPORATE SOURCE: Department of Entomology, G.B. Pant University of Agriculture and Technology, Pantnagar, 263 145, India
SOURCE: Pestology (2005), 29(7), 35-38
CODEN: PSTOEQ; ISSN: 0970-3012
PUBLISHER: Scientia Publications Pvt. Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An experiment was conducted to study the usefulness of deltamethrin (1 ppm), carboxin (1875 ppm), and mixture of deltamethrin (1 ppm) + carboxin (1875 ppm) in protecting the wheat seed from insect infestation and maintaining its vigor and viability for long term storage. Deltamethrin at 1 ppm provided 97% protection against infestation of Sitophilus oryzae, Rhyzopertha dominica, and Tribolium castaneum and maintained a vigor index of 222359 with 86% germination for 18 mo. The mixture of deltamethrin 1 ppm + carboxin 1875 ppm was compatible and gave 98% protection against infestation for 24 mo and maintained 97.5% germination and 351636 vigor index for 18 mo. The study revealed that wheat seed treated with the mixture of deltamethrin 1 ppm + carboxin 1875 ppm may be stored safely for .apprx.24 mo and could be used at least in 2 crop season without loss in germination, viability, and vigor.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Effectiveness of deltamethrin and carboxin in long-term protection of health, viability and vigor of wheat seed
AB An experiment was conducted to study the usefulness of deltamethrin (1 ppm), carboxin (1875 ppm), and mixture of deltamethrin (1 ppm) + carboxin (1875 ppm) in protecting the wheat seed from insect infestation and maintaining its vigor and viability for long term storage. Deltamethrin at 1 ppm provided 97% protection against infestation of Sitophilus oryzae, Rhyzopertha dominica, and Tribolium castaneum and maintained a vigor index of 222359 with 86% germination for 18 mo. The mixture of deltamethrin 1 ppm + carboxin 1875 ppm was compatible and gave 98% protection against infestation for 24 mo and maintained 97.5% germination and 351636 vigor index for 18 mo. The study revealed that wheat seed treated with the mixture of deltamethrin 1 ppm + carboxin 1875 ppm may be stored safely for .apprx.24 mo and could be used at least in 2 crop season without loss in germination, viability, and vigor.
ST wheat seed deltamethrin carboxin
IT Germination
Rhyzopertha dominica
Seed
Sitophilus oryzae
Tribolium castaneum
(effectiveness of deltamethrin and carboxin in long-term protection of health, viability, and vigor of wheat seed)
IT 5234-68-4, Carboxin 52918-63-5, Deltamethrin 871127-41-2, Carboxin-deltamethrin mixture
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(effectiveness of deltamethrin and carboxin in long-term protection of health, viability, and vigor of wheat seed)

L37 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:424166 CAPLUS
DOCUMENT NUMBER: 133:39414
TITLE: Influence of combined fungicide-insecticide treatment of winter wheat seed on crop development and yield after early and normal sowing date
AUTHOR(S): Schoberlein, W.; Herrmann, K.; Matthies, H.
CORPORATE SOURCE: Institut fur Acker- und Pflanzenbau, Lehrgebiet Saatgutwirtschaft, Martin-Luther-Universitat Halle-Wittenberg, Halle, 06108, Germany
SOURCE: Pflanzenschutz-Nachrichten Bayer (German Edition) (1999), 52(3), 320-346
CODEN: PNBYAT; ISSN: 0340-1723
PUBLISHER: Bayer AG
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Larger agricultural concerns growing winter wheat on a major scale have been considering the possibility of sowing winter wheat earlier, partly to make more efficient use of manpower but also to further increase the yield. Early sowing of winter wheat poses the risk of the young plants becoming infected with animal pests and - in the event of warm autumn weather - with barley yellow dwarf virus (BYDV), which greatly reduces yields. These problems were investigated in field trials carried out from 1995 to 1998, which involved early sowing (10 to 13 Sept.) and normal sowing (8 to 9 Oct.) of the winter wheat varieties Kontrast and Toronto at seed densities of 450 and 300 fertile caryopses per m2 under the influence of 4 different seed treatments. The results obtained in the individual years of the study are shown in 16 figures and 5 tables, and are discussed with the aid of the biostatistical findings. The grain yields in all three years benefited from early sowing. The yield stability of the early sowing was successfully safeguarded by prophylactic protection of the seedlings and young plants by combined seed treatment including Gaucho. The active ingredient imidacloprid was effective in protecting the young plants of the early sowing in the autumn of 1995 from animal pests and viral infection. Even in 1997/1998, when there was no viral infection, the combined seed treatment with the two insecticides tested, Gaucho + Contur Plus, had significant effects on the yield of the early sowing. The standing crops which develop rapidly in the spring require appropriate crop management and careful monitoring for harmful organisms, so that prompt crop protection measures can be taken if necessary. The two seed-d. variants did not produce any significant differences in yield in any of the study years, so 300 fertile caryopses per m2 can be regarded as the upper limit in early sowing of winter wheat in areas with similar natural conditions to the study location. On the basis of the study results, the early sowing of winter wheat can help to spread the autumn workload peak and raise the yield of suitable winter wheat varieties still further.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Influence of combined fungicide-insecticide treatment of winter wheat seed on crop development and yield after early and normal sowing date

AB Larger agricultural concerns growing winter wheat on a major scale have been considering the possibility of sowing winter wheat earlier, partly to make more efficient use of manpower but also to further increase the yield. Early sowing of winter wheat poses the risk of the young plants becoming infected with animal pests and - in the event of warm autumn weather - with barley yellow dwarf virus (BYDV), which greatly reduces yields. These problems were investigated in field trials carried out from 1995 to 1998, which involved early sowing (10 to 13 Sept.) and normal sowing (8 to 9 Oct.) of the winter wheat varieties Kontrast and Toronto at seed densities of 450 and 300 fertile caryopses per m2 under the influence of 4 different seed treatments. The

results obtained in the individual years of the study are shown in 16 figures and 5 tables, and are discussed with the aid of the biostatistical findings. The grain yields in all three years benefited from early sowing. The yield stability of the early sowing was successfully safeguarded by prophylactic protection of the seedlings and young plants by combined seed treatment including Gaucho. The active ingredient imidacloprid was effective in protecting the young plants of the early sowing in the autumn of 1995 from animal pests and viral infection. Even in 1997/1998, when there was no viral infection, the combined seed treatment with the two insecticides tested, Gaucho + Contur Plus, had significant effects on the yield of the early sowing. The standing crops which develop rapidly in the spring require appropriate crop management and careful monitoring for harmful organisms, so that prompt crop protection measures can be taken if necessary. The two seed-d. variants did not produce any significant differences in yield in any of the study years, so 300 fertile caryopses per m2 can be regarded as the upper limit in early sowing of winter wheat in areas with similar natural conditions to the study location. On the basis of the study results, the early sowing of winter wheat can help to spread the autumn workload peak and raise the yield of suitable winter wheat varieties still further.

ST wheat fungicide insecticide combination; betacyfluthrin fludioxonil tebuconazole imidacloprid combination wheat

IT Fungicides
Growth and development, plant
Insecticides
Winter wheat
(influence of combined fungicide-insecticide treatment of winter wheat seed on plant development and yield)

IT 138261-41-3, Imidacloprid
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(with beta-cyfluthrin and/or fludioxonil and tebuconazole; influence of combined fungicide-insecticide treatment of winter wheat seed on plant development and yield)

IT 68359-37-5, Beta-Cyfluthrin
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(with fludioxonil and tebuconazole; influence of combined fungicide-insecticide treatment of winter wheat seed on plant development and yield)

IT 107534-96-3, Tebuconazole
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(with fludioxonil; influence of combined fungicide-insecticide treatment of winter wheat seed on plant development and yield)

IT 131341-86-1, Fludioxonil
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(with tebuconazole; influence of combined fungicide-insecticide treatment of winter wheat seed on plant development and yield)

L37 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:137815 CAPLUS
DOCUMENT NUMBER: 112:137815
TITLE: Relative efficacy of pyrethroids against rice weevil (Sitophilus oryzae L.) infesting stored wheat
AUTHOR(S): Suchita, M. Grace; Reddy, G. P. V.; Murthy, M. M.

Krishna
CORPORATE SOURCE: Dep. Entomol., Agric. Coll., Bapatla, 522 101, India
SOURCE: Indian Journal of Plant Protection (1989), 17(2), 243-6
CODEN: IPLPDQ; ISSN: 0253-4355
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Treating wheat seeds with pyrethroids did not affect germination. Contact LC50 values for rice weevil were as follows: cypermethrin 0.00030, fenvalerate 0.00125, flucythrinate 0.00150, and fenpropathrin 0.00161%. The effectiveness in wheat seed protection decreased generally in the same order and was satisfactory for cypermethrin and fenvalerate.
TI Relative efficacy of pyrethroids against rice weevil (Sitophilus oryzae L.) infesting stored wheat
AB Treating wheat seeds with pyrethroids did not affect germination. Contact LC50 values for rice weevil were as follows: cypermethrin 0.00030, fenvalerate 0.00125, flucythrinate 0.00150, and fenpropathrin 0.00161%. The effectiveness in wheat seed protection decreased generally in the same order and was satisfactory for cypermethrin and fenvalerate.
ST wheat Sitophilus pyrethroid
IT Sitophilus oryzae
(control of, in wheat seeds, by pyrethroids)
IT Pyrethrins and Pyrethroids
RL: BIOL (Biological study)
(rice weevil control by, in wheat seeds)
IT Wheat
(rice weevil control in stored, by pyrethroids)
IT 39515-41-8, Fenpropathrin 51630-58-1, Fenvalerate 52315-07-8, Cypermethrin 70124-77-5, Flucythrinate
RL: BIOL (Biological study)
(rice weevil control by, in wheat seeds)

L37 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:589536 CAPLUS
DOCUMENT NUMBER: 111:189536
TITLE: Field evaluation of synthetic pyrethroids for the protection of stored wheat seed against storage pests
AUTHOR(S): Ramzan, M.; Chahal, B. S.; Judge, B. K.
CORPORATE SOURCE: Dep. Entomol., Punjab Agric. Univ., Ludhiana, India
SOURCE: International Pest Control (1989), 31(4), 87-9
CODEN: IPCLBZ; ISSN: 0020-8256
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three field trials on the treatment of wheat seed against a complex of storage pests, comprising mainly Rhizopertha dominica, Sitophilus oryzae, and Tribolium castaneum, were conducted during 1985-87 using synthetic pyrethroids, namely deltamethrin (Decis 2.8 EC, K-othrine 2.5 WP), fenvalerate (Sumicidin 20 EC), fenpropathrin (Meothrin 10 EC) and cypermethrin (Cymbush 25 EC, Markcyper 10 EC) each at 4 and 8 ppm and compared with malathion (Cythion 5% dust) at 125 ppm and untreated control. The seed treated with both the dosages of K-othrine after 6 mo of storage was almost free from insect damage. In other pyrethroid treatments, the damage after six months of storage varied from 2.7 to 7.9% during 1985. However, during 1986 and 1987, the damage did not exceed 2.0 and 1.0%, resp., the two years being on a par with one another. Fenpropathrin proved significantly inferior. In malathion-treated seed the loss varied from 11.0 to 13.0% and in controls the losses were 29.5 and 34.2%, in 1986 and 1987,

resp. After one year's storage, there was no appreciable reduction in viability even at 250 ppm. Thus, the pyrethroids can be safely used for seed treatment.

TI Field evaluation of synthetic pyrethroids for the protection of stored wheat seed against storage pests

AB Three field trials on the treatment of wheat seed against a complex of storage pests, comprising mainly Rhizopertha dominica, Sitophilus oryzae, and Tribolium castaneum, were conducted during 1985-87 using synthetic pyrethroids, namely deltamethrin (Decis 2.8 EC, K-othrine 2.5 WP), fenvalerate (Sumicidin 20 EC), fenpropathrin (Meothrin 10 EC) and cypermethrin (Cymbush 25 EC, Markcyper 10 EC) each at 4 and 8 ppm and compared with malathion (Cythion 5% dust) at 125 ppm and untreated control. The seed treated with both the dosages of K-othrine after 6 mo of storage was almost free from insect damage. In other pyrethroid treatments, the damage after six months of storage varied from 2.7 to 7.9% during 1985. However, during 1986 and 1987, the damage did not exceed 2.0 and 1.0%, resp., the two years being on a par with one another. Fenpropathrin proved significantly inferior. In malathion-treated seed the loss varied from 11.0 to 13.0% and in controls the losses were 29.5 and 34.2%, in 1986 and 1987, resp. After one year's storage, there was no appreciable reduction in viability even at 250 ppm. Thus, the pyrethroids can be safely used for seed treatment.

ST pyrethroid stored wheat seed; storage pest wheat pyrethroid

IT Wheat
(pyrethroids for protection of stored seeds of)

IT Pyrethrins and Pyrethroids
RL: BIOL (Biological study)
(wheat seed protection against storage pests by)

IT 121-75-5, Cythion 39515-41-8, Meothrin 51630-58-1, Sumicidin 52315-07-8, Cymbush 52918-63-5, Decis
RL: BIOL (Biological study)
(wheat seed protection against storage pests by)

L37 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:83250 CAPLUS
DOCUMENT NUMBER: 106:83250
TITLE: Efficacy of deltamethrin against insect infestation in wheat stored under rural storage system
AUTHOR(S): Yadav, T. D.
CORPORATE SOURCE: Div. Entomol., Indian Agric. Res. Inst., New Delhi, India
SOURCE: Pesticides (1986), 20(10), 12-13, 19
CODEN: PSTDAN; ISSN: 0031-6148
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Treatment of wheat seed with 3 ppm of deltamethrin [52918-63-5] provided effective protection ≤6 mo under a rural storage system. A 20 mg/m2 deposit of deltamethrin (Kothrine) WP on jute and cement surfaces persisted for 120-170 days and gave total kill against 8 species of stored product insects. Even on a mud surface similar efficacy was observed against 5 species of insects. The potential of deltamethrin in prophylactic operation is discussed.

TI Efficacy of deltamethrin against insect infestation in wheat stored under rural storage system

AB Treatment of wheat seed with 3 ppm of deltamethrin [52918-63-5] provided effective protection ≤6 mo under a rural storage system. A 20 mg/m2 deposit of deltamethrin (Kothrine) WP on jute and cement surfaces persisted for 120-170 days and gave total kill against 8 species of stored product insects. Even on a mud surface similar efficacy was observed against 5

species of insects. The potential of deltamethrin in prophylactic operation is discussed.

ST deltamethrin insecticide wheat storage

IT Wheat
(deltamethrin efficiency against insect infestation in stored, under rural storage systems)

IT Cadra cautella
Callosobruchus chinensis
Callosobruchus maculatus
Corcyra cephalonica
Latheticus oryzae
Rhizopertha dominica
Sitophilus oryzae
Tribolium castaneum
Trogoderma granarium
(deltamethrin efficiency against, in wheat stored under rural storage systems)

IT 52918-63-5, Deltamethrin
RL: BIOL (Biological study)
(insect infestation in wheat stored under rural storage system control by)

L37 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:45690 CAPLUS
DOCUMENT NUMBER: 106:45690
TITLE: Chemical control of wheat bulb fly (Delia coarctata) attacking winter wheat in eastern England, 1969-1981. I. Insecticidal seed treatments
AUTHOR(S): Maskell, F. E.; Gair, R.
CORPORATE SOURCE: Agric. Dev. Advis. Serv., Cambridge, CB2 2DR, UK
SOURCE: Annals of Applied Biology (1986), 109(2), 223-36
CODEN: AABIAV; ISSN: 0003-4746
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Dry powder, liquid and microencapsulated formulations of organophosphate and synthetic pyrethroid insecticidal seed treatments were tested as possible alternatives to the standard organochlorine seed treatments for autumn-sown wheat in mineral and organic soils heavily infected with wheat bulb fly eggs and (subsequently) larvae. Retention of insecticides on the seed coat varied from 40 to 120% of the target dose; it was usually good when microencapsulated formulations were used. Chlorfenvinphos [470-90-6], fonofos [944-22-9], isofenphos [25311-71-1] and triazophos [24017-47-8], each applied at 2.0 g/kg seed, were phytotoxic, the symptoms varying from a slight delaying effect upon germination to an adverse effect upon grain yield. Chlorfenvinphos at 0.2-2.0 g/kg seed was consistently effective against wheat bulb fly larvae in both mineral and organic soils. Athidathion [19691-80-6] (0.8 g/kg), carbophenothion [786-19-6] (1.2 g/kg), ethion [563-12-2] (1.7 g/kg) and fonofos (microencapsulated formulations) at 1.0 or 2.0 g/kg were also effective in mineral and organic soils. Of the synthetic pyrethroids tested as seed treatments, permethrin [52645-53-1] gave excellent results in mineral soils at 1·0 g/kg or in synergized formulations at 0.12 or 0.24 g/kg but was disappointing in organic soils. In a single comparison of seed treatments applied to wheat sown early (14 Oct.) and late (20 Nov.), chlorfenvinphos was effective at both sowing dates whereas athidathion, ethion and pirimiphos-ethyl [23505-41-1] gave better results in late-sown wheat. A single trial compared deep with shallow sowing of treated seed. Most insecticides performed better on shallow-sown wheat, but chlorfenvinphos was equally effective against the pest at both sowing depths. Most insecticides restricted the nos. of larvae entering host plants but had little or no subsequent effect upon larval survival within attacked shoots. Fonofos and isofenphos, and to a lesser extent chlorfenvinphos, seed treatments addnl. killed many larvae within plant shoots.

TI Chemical control of wheat bulb fly (Delia coarctata) attacking winter wheat in eastern England, 1969-1981. I. Insecticidal seed treatments

AB Dry powder, liquid and microencapsulated formulations of organophosphate and synthetic pyrethroid insecticidal seed treatments were tested as possible alternatives to the standard organochlorine seed treatments for autumn-sown wheat in mineral and organic soils heavily infected with wheat bulb fly eggs and (subsequently) larvae. Retention of insecticides on the seed coat varied from 40 to 120% of the target dose; it was usually good when microencapsulated formulations were used. Chlorfenvinphos [470-90-6], fonofos [944-22-9], isofenphos [25311-71-1] and triazophos [24017-47-8], each applied at 2.0 g/kg seed, were phytotoxic, the symptoms varying from a slight delaying effect upon germination to an adverse effect upon grain yield. Chlorfenvinphos at 0.2-2.0 g/kg seed was consistently effective against wheat bulb fly larvae in both mineral and organic soils. Athidathion [19691-80-6] (0.8 g/kg), carbophenothion [786-19-6] (1.2 g/kg), ethion [563-12-2] (1.7 g/kg) and fonofos (microencapsulated formulations) at 1.0 or 2.0 g/kg were also effective in mineral and organic soils. Of the synthetic pyrethroids tested as seed treatments, permethrin [52645-53-1] gave excellent results in mineral soils at 1·0 g/kg or in synergized formulations at 0.12 or 0.24 g/kg but was disappointing in organic soils. In a single comparison of seed treatments applied to wheat sown early (14 Oct.) and late (20 Nov.), chlorfenvinphos was effective at both sowing dates whereas athidathion, ethion and pirimiphos-ethyl [23505-41-1] gave better results in late-sown wheat. A single trial compared deep with shallow sowing of treated seed. Most insecticides performed better on shallow-sown wheat, but chlorfenvinphos was equally effective against the pest at both sowing depths. Most insecticides restricted the nos. of larvae entering host plants but had little or no subsequent effect upon larval survival within attacked shoots. Fonofos and isofenphos, and to a lesser extent chlorfenvinphos, seed treatments addnl. killed many larvae within plant shoots.

ST wheat bulb fly insecticide; Delia winter wheat insecticide seed

IT Hylemya coarctata
(control of, on winter wheat, by insecticidal seed treatments)

IT Insecticides
Pyrethrins and Pyrethroids
RL: BIOL (Biological study)
(wheat bulb fly control on winter wheat by seed treatment with)

IT Wheat
(winter, wheat bulb fly control on, by insecticidal seed treatments)

IT 309-00-2, Aldrin 470-90-6, Chlorfenvinphos 563-12-2, Ethion 786-19-6, Carbophenothion 944-22-9, Fonofos 19691-80-6, Athidathion 23505-41-1, Pirimiphos-ethyl 24017-47-8, Triazophos 25311-71-1, Isofenphos 39515-41-8, Fenpropathrin 42509-80-8, Isazophos 52645-53-1, Permethrin
RL: BIOL (Biological study)
(wheat bulb fly control on winter wheat by seed treatment with)

L37 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:418352 CAPLUS
DOCUMENT NUMBER: 103:18352
TITLE: Seed treatments for controlling slugs in winter wheat
AUTHOR(S): Scott, G. C.; Pickett, J. A.; Smith, M. C.; Woodcock, Christine M.; Harris, P. G. W.; Hammon, R. P.; Koetecha, H. D.
CORPORATE SOURCE: Rothamsted Exp. Stn., Harpenden/Herts., AL5 2JQ, UK

SOURCE: British Crop Protection Conference--Pests and Diseases, Proceedings (1984), (1), 133-8
CODEN: PBCDDQ; ISSN: 0144-1612
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In laboratory tests on seed treatments to control slugs (Deroceras reticulatum) in winter wheat, the treatments most effective in preventing damage to the seeds were as follows: aldicarb [116-06-3], thiocarboxime [25171-63-5], methiocarb [2032-65-7], ioxynil [1689-83-4], bromoxynil [1689-84-5], dinoseb [88-85-7], geraniol [106-24-1] and cartap-HCl [15263-52-2], thiocyclam hydrogen oxalate [31895-22-4], geraniol [106-24-1], and avermectin B1 [71751-41-2]. Some materials were phytotoxic, including thiocyclam hydrogen oxalate. However, polymeric salts of thiocyclam did not affect germination, and were still effective in preventing feeding by slugs. In a field trial at a site with a high population of slugs, methiocarb, cartap HCl and thiocyclam polystyrenehydrosulfonate [96256-80-3] seed treatments were more effective than methiocarb pellets mixed with the seed. The best seed treatment, methiocarb at 0.1%/weight of seed, increased yield by 50% compared with untreated controls.

TI Seed treatments for controlling slugs in winter wheat

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ST wheat slug control seed treatment; Deroceras wheat control seed treatments

IT Deroceras reticulatum
(control of, in winter wheat, seed treatment in)

IT Molluscicides
(slug control by, in winter wheat, seed treatment in)

IT Resins
RL: BIOL (Biological study)
(oleo-, slug control by, in winter wheat, seed treatment in)

IT Wheat
(winter, slug control in, seed treatments in)

IT 51-28-5, biological studies 51-55-8, biological studies 54-11-5 59-66-5 66-81-9 83-79-4 84-65-1 88-85-7 106-24-1 112-12-9 116-06-3 127-33-3 137-26-8 533-74-4 1420-06-0 1563-66-2 1631-58-9 1689-83-4 1689-84-5 1689-99-2 2032-65-7 2260-50-6 3281-96-7 3383-96-8 3734-33-6 3861-47-0 6754-20-7 7439-95-4D, organic acid salts 13593-03-8 15263-52-2 17606-31-4 20574-50-9 23420-61-3 25171-63-5 31895-22-4 33089-61-1 39066-89-2 39699-07-5 51487-69-5 52918-63-5 65907-30-4 71751-41-2 96256-80-3 96304-59-5
RL: BIOL (Biological study)
(slug control by, in winter wheat, seed treatment in)

L37 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:479679 CAPLUS
DOCUMENT NUMBER: 87:79679
TITLE: Pesticidal compositions

PATENT ASSIGNEE(S): ICI Australia Ltd., Australia
SOURCE: Brit., 4 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1462319	A	19770126	GB 1975-42046	19751014
ZA 7506347	A	19760929	ZA 1975-6347	19751007
BR 7506820	A	19760817	BR 1975-6820	19751017
PRIORITY APPLN. INFO.:			AU 1974-9308 A	19741018

AB Pesticide compns., especially for use on stored grains, were prepared free from organic solvents. E.g., a composition was prepared containing bioresmethrin [28434-01-7] 18.75, Actellic [29232-93-7] 75.0, Teric 200 [63496-57-1] 5.7, Kemmat SC15B [63496-26-4] 3.2, and Teric 18M20 [26635-92-7] 0.3 parts weight Samples of wheat seed were treated with a diluted solution of this composition such that 6 ppm Actellic acid was deposited on the surface. On the third day of contact with the treated seed mortality was 100% towards Tribolium confusum, Oryzaephilus surinamensis, and Sitophilus granarius, and 63% towards Rhizopertha dominica.
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ST wheat pesticide compn
IT Wheat
(organic-solvent-free pesticide composition for)
IT Pesticides
(organic-solvent-free, for wheat)
IT 122-14-5 26635-92-7 28434-01-7 29232-93-7 52645-53-1 63496-26-4 63496-57-1
RL: BIOL (Biological study)
(in organic-solvent-free wheat pesticide composition)

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L38 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:146672 CAPLUS
DOCUMENT NUMBER: 132:250219
TITLE: Insecticide treatment and seed quality of corn during storage
AUTHOR(S): Smiderle, Oscar Jose; Cicero, Silvio Moure
CORPORATE SOURCE: EMBRAPA/CPAFRR, Boa Vista, CEP: 69301-970, Brazil
SOURCE: Scientia Agricola (Piracicaba, Brazil) (1999), 56(4, Supl.), 1245-1254
CODEN: SGRIEF; ISSN: 0103-9016
PUBLISHER: Universidade de Sao Paulo, Campus de Luiz de Queiroz
DOCUMENT TYPE: Journal
LANGUAGE: Portuguese
AB The effects of insecticides (deltamethrin, chlorpyrifos, phosphine, and diatomaceous earth) on insect control of stored corn seeds was studied during 12 mo. Seeds were treated singly or in combination with deltamethrin and chlorpyrifos, phosphine and diatomaceous earth, and they were further arranged into multifoliated paper bags and stored for 12 mo under normal environmental conditions. Seeds were submitted to infestation examination, weight determination of 100 seeds, germination test, cold test, accelerated aging, elec. conductivity test, emergence of seedlings in the field and rate of seedling emergence, 7 times at bimonthly intervals. Deltamethrin and chlorpyrifos (alone or combined), phosphine and diatomaceous earth were equally potent insecticides, without causing toxicity to corn seeds. The physiol. quality of corn seeds was preserved by the addition of chemical insecticides and diatomaceous earth.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 2921-88-2, Chlorpyrifos 7803-51-2, Phosphine 52918-63-5, Deltamethrin 84470-99-5, Chlorpyrifos-deltamethrin mixt
RL: BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(insecticide treatment of stored corn seeds with)

L38 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:501918 CAPLUS
DOCUMENT NUMBER: 121:101918
TITLE: Residual efficacy of cyfluthrin applied alone or in combination with piperonyl butoxide or piperonyl butoxide + chlorpyrifos-methyl as protectants of stored corn
AUTHOR(S): Arthur, Frank H.
CORPORATE SOURCE: U. S. Dep. Agric., Agric. Res. Serv., Savannah, GA, 31405, USA
SOURCE: Journal of Entomological Science (1994), 29(2), 276-87
CODEN: JESCEP; ISSN: 0749-8004
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pioneer variety "3320" seed corn, treated with 0.5, 1.0, 1.5, or 2.0 ppm cyfluthrin (I), each rate of cyfluthrin + 8.0 ppm piperonyl butoxide mixture (II), or each rate of cyfluthrin + 8.0 ppm piperonyl butoxide + 6.0 ppm chlorpyrifos-Me mixture (III), was stored for 10 mo at ambient conditions in south Georgia. Every 2 mo the corn was sampled and bioassayed with maize weevil, Sitophilus zeamais (Motschulsky), and red flour beetle, Tribolium castaneum (Herbst). Maize weevil survival on corn treated with 0.5, 1.0, and 1.5 ppm I ranged from 39.5 to 76.0%, 4.0 to 29.5%, and 1.0 to 11.5%, resp. Weevils did not survive exposure on corn treated with 2.0 ppm I, each rate of II, or each

rate of III. F1 progeny and dockage (ground corn flour and insect frass) in incubated bioassays were correlated with initial survival. Red flour beetle survival on corn treated with I alone or II was variable throughout the test, although survival at any bioassay usually decreased as the rate of I increased. However, no F1 adults or dockage was detected in any incubated bioassay from the 12 chemical treatments.

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L38 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:664636 CAPLUS
DOCUMENT NUMBER: 119:264636
TITLE: Management of bollworm in sprinkler irrigated cotton: residual activity of four classes of insecticides applied via chemigation
AUTHOR(S): Chandler, L. D.; Sumner, H. R.; Herzog, G. A.
CORPORATE SOURCE: IBPMRL, ARS, Tifton, GA, USA
SOURCE: Proceedings - Beltwide Cotton Conferences (1993), (3), 1614-16
CODEN: PCOCEN; ISSN: 1059-2644
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chemigation of non-emulsifiable concentrate (EC) oil and water mixts. of cypermethrin, sulprofos, thiodicarb and Bacillus thuringiensis kurstaki to field grown cotton was evaluated for effectiveness against larvae of the bollworm, Helicoverpa zea. All tested insecticide mixts. could be readily applied using chemigation technol. Both tested rates (0.06 and 0.03 kg/ha) of cypermethrin (Amm 5) mixed with oil and the high rate (0.06 kg/ha) of cypermethrin mixed with water consistently resulted in the greatest bollworm mortality through the first 72 h following treatment. Plants treated with the above cypermethrin mixts. yielded significantly greater amts. of seed cotton than plants treated with any other tested insecticide. In most instances the addition of a non-EC oil to chemical insecticides resulted in greater levels of bollworm mortality than chemical insecticides mixed with water 24 h after application. However, addition of oil to B. thuringiensis appears to limit its effectiveness.

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insecticides resulted in greater levels of bollworm mortality than chemical insecticides mixed with water 24 h after application. However, addition of oil to B. thuringiensis appears to limit its effectiveness.

L38 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:650303 CAPLUS
DOCUMENT NUMBER: 115:250303
TITLE: Soil-insecticide bioassays and seed treatments for soil-insect control in Central Queensland, Australia
AUTHOR(S): Robertson, L. N.
CORPORATE SOURCE: Entomol. Branch, Queensland Dep. Primary Ind., Emerald, 4720, Australia
SOURCE: Crop Protection (1991), 10(4), 293-8
CODEN: CRPTD6; ISSN: 0261-2194
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twelve insecticides were tested as seed treatments or as banded applications in laboratory soil bioassays against striate false wireworm larvae (Pterohelaeus alternatus). The systemic carbamate insecticides carbofuran and furathiocarb, when applied as seed treatments, protected sorghum from damage at rates ≥0.7 kg/100 kg seed. These chems. did not kill a high proportion of larvae, and feeding deterrence as the mode of action was indicated. The soil-active synthetic pyrethroids tefluthrin and bifenthrin, applied as banded sprays, protected seedlings and killed larvae at 0.005 kg ha-1. The most effectve organophosphate was ebufos, which protected seedlings at rates >1.0 kg ha-1. In field trials on the Central Highlands of Queensland, seed treatments of carbofuran and furathiocarb significantly increased establishment of cotton and sorghum, but not that of sunflower, when false wireworm adults and wingless cockroaches (Calolampra elegans) were present. The carbamates were superior to pyrethroids in protection of emerging seedlings. Systemic insecticides did not prevent lethal damage to emerging sunflower seedlings when surface-active insect densities were similar to the nos. of seedlings (45000 ha-1). Thiocarb seed treatment in cotton (at 0.7 kg ai/100 kg seed) significantly reduced nos. of black field earwig (Nala lividipes).
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L38 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:607723 CAPLUS
DOCUMENT NUMBER: 105:207723
TITLE: Studies on pyrethroid residues in winter rape
AUTHOR(S): Pieczonka, Genowefa; Mrowczynski, Marek

CORPORATE SOURCE: Inst. Ochr. Roslin, Poznan, Pol.
SOURCE: Materialy Sesji Naukowej Instytutu Ochrony Roslin (Poznan) (1985), 25, 439-49
CODEN: MSNRD5; ISSN: 0208-4414
DOCUMENT TYPE: Journal
LANGUAGE: Polish

AB The levels of cypermethrin [52315-07-8] in green rape plant, rape straw and rape seeds were ≤0.62, ≤0.17 and <0.01 mg/kg (0.01 mg/kg was the detection limit) when Ripcord 10 EC, Ripcord 40 EC, Cymbusz 10 EC, Cymbusz 25 EC and Sherapa 25 EC were applied. The corresponding values for deltamethrin [52918-63-5] (after application of Decis 2,5 EC and Decis 2,5 flow) were ≤0.22, ≤0.02 and <0.01 mg/kg and for fenvalerate [51630-58-1] (after application of Sumicidin 20 EC) were ≤2.26, ≤0.15 and <0.01 mg/kg. Rape seeds did not contain detectable levels of alfamethrin [52315-07-8] (after application cation of Fastac 25 EC and Decis 2,5 EC flow. Thus, the waiting period for harvesting rape seeds after application of perethroids may be shortened (to 10-14 days).

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L38 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:46984 CAPLUS
DOCUMENT NUMBER: 100:46984
TITLE: Heliothis spp.: insecticidal control evaluations on cotton at Stoneville, MS
AUTHOR(S): Pfrimmer, T. R.
CORPORATE SOURCE: South. Field Crop Insect Management Lab., Agric. Res. Serv., Stoneville, MS, 38776, USA
SOURCE: Journal of the Georgia Entomological Society (1983), 18(4), 464-79
CODEN: GENSAB; ISSN: 0016-8238
DOCUMENT TYPE: Journal
LANGUAGE: English

AB All insecticides tested (.apprx.41) gave fair to good control of Heliothis infestation on cotton and resulted in an increase in the yield. As an example, plots treated with 0.45 kg/ha of AC 222,705 [70124-77-5] produced more seed cotton, than plots treated with 0.028 kg/ha AC 222,705. Also, plots treated with profenfos [41198-08-7] (1.12 kg/ha) or fenvalerate [51630-58-1] (0.112 kg/ha) produced more seed than plots treated with endosulfan - chlorpyrifos mixture [73924-61-5] (0.56 + 0.37 kg/ha) or toxaphene - fenvalerate mixture [77837-51-5], (2.24 + 0.56 kg/ha). The EPN - methyl parathion - methomyl mixture [88480-19-7] (84 + 0.84 + 0.28 kg/ha) was phytotoxic and affected the yield. Addition of plant growth regulators to the insecticides had little effect, and surfactant addition did not improve pyrethroid and organophosphate insecticide efficiency.

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L38 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:193346 CAPLUS
DOCUMENT NUMBER: 98:193346
TITLE: Control of cotton bollworms with fenvalerate in India
AUTHOR(S): Agnihothrudu, V.; Gour, T. B.
CORPORATE SOURCE: Rallis Agrochem. Res. Stn., Bangalore, 560 058, India
SOURCE: Crop Protection (1982), 1(2), 231-4
CODEN: CRPTD6; ISSN: 0261-2194
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthetic pyrethroid fenvalerate (I; Sumicidin 20E) [51630-58-1] was tested in 64 field trials for the control of bollworms on rainfed and irrigated cotton, and I at rates of 50-150 g/ha was tested on 15 varieties of cotton, with long, extra-long, short,and medium staples. From 2 to 9 sprays were applied at intervals of 7-30 days, depending on whether the insecticide was sprayed according to a calendar-based schedule or when needed. I was compared with conventional insecticides such as carbaryl [63-25-2], monocrotophos [6923-22-4], endosulfan [115-29-7], and phosalone [2310-17-0] and also with the synthetic pyrethroids permethrin [52645-53-1], cypermethrin [52315-07-8], and deltamethrin [52918-63-5]. The percentage of bollworm-infested plants in the I-treated plots ranged from 0 to 21.8% and in the untreated plots was ≤100%. With conventional pesticides the maximum level of infestation was 97.2%. Increases in yield of seed cotton from I-treated plots over those from plots treated with conventional pesticides were 54, 57, 67, 84, and 86% over monocrotophos, carbaryl, quinalphos [13593-03-8], phosalone and endosulfan, resp., representing increases of 791-1046 kg/ha.
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L38 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:610378 CAPLUS
DOCUMENT NUMBER: 89:210378
TITLE: The control of mites in stored oilseed rape

AUTHOR(S): Good, Elisabeth A. M.; Stables, Lorna M.; Wilkin, D. R.
CORPORATE SOURCE: Pest Infest. Control Lab., Minist. Agric., Fish. Food, Slough/Berks., UK
SOURCE: British Crop Protection Conference--Pests and Diseases, Proceedings (1977), (1), 161-8
CODEN: PBCDDQ; ISSN: 0144-1612
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Of several compds. tested, pirimiphos methyl (I) [29232-93-7] dust (2%) controlled Acarus siro in farm-stored rape oilseed both on the surface and to a depth of 1 m. I also controlled Glycyphagus destructor. The 2 mites were also controlled by Etrimfos [38260-54-7], bioresmethrin-piperonyl butoxide mixture [39471-19-7] and chlorpyrifos methyl [5598-13-0]. I content in crude rape oil after seed treatment with I dust was 11.7 ppm, 24 in the bleached oil and 0.7 ppm in rape oil after steam distillation
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